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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/675,059 | 09/30/2003 | Brent Dalmas Nelson | EDSC105US0 | 5833 |
| 34279 7590 02/20/2007 DOCKET CLERK, DM/EDS P.O. DRAWER 800889 DALLAS, TX 75380 | | | EXAMINER DAO, THUY CHAN | |
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| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/675,059

Applicant(s)

NELSON, BRENT DALMAS

Examiner

Thuy Dao

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is the initial office action based on the application filed on 09/30/2003.

Priority date that has been considered for this application is 09/30/2003.

Claims 1 – 20 are currently pending and have been considered below.

Claim Objections

1. Claims 5 and 14 are objected under 37 CFR 1.75 as being a substantial duplicate of claims 3 and 12, respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim.

2. Claim 10 is directed to a method as the claim subject matter; however, the elements of the claim are directed software instructions, not steps, for data manipulation and transformation. Furthermore, the dependent claims of claim 10, which are claims 11 – 18, are directed to a system as the claim subject matter. In the context of the language and meanings of claims 10 – 18, Examiner assumes that claim 10 is meant to be a system claim in which the word "*method*" is a mistype and claim 10 should read as: "A [~~method~~] system for converting ...".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1 – 20 are rejected under 35 U.S.C. 102(b) as being anticipated by **Ehrman et al.** (US 6,775,680).

-- Claim 1.

Ehrman discloses a *method for converting a first metamodel system that is standards-noncompliant into a second metamodel system that is standards-compliant* (Fig. 3 – Common Application Model (CAM) – and associated text, e.g. Col. 10: lines 5 – 10. Examiner notes that CAM consists of Invocation Metamodel, Application-Domain Interface Metamodel, and Language Metamodel), *comprising the steps of:*

- *substituting automatically a plurality of standards-noncompliant hyperlinks within said first metamodel system with a plurality of standards-compliant hyperlinks;*

(Fig. 2 – SQL stored procedures, Fig. 3 – CAM, and Fig. 5 and associated text, e.g. Col. 10: lines 15 – 24. An existing application, such as SQL stored procedures **205**, is read by CAM, **301** & **303** & **305**, to build a metamodel stored in metadata repository **505** which is ultimately combined with a source code **507** to generate XML document **511**. During the operation of CAM, the hyperlinks of SQL store procedures are converted as necessary to comply with the standards of invocation metamodel **301** & application-domain interface metamodel **303** & language metamodel **305**. Examiner notes that Type Descriptor metamodel handles the physical realization, storage mapping, and the constraints on the realization. Type Descriptor metamodel further provides data type mapping and language translation in a mixed language and/or platform environment (Col. 11: line 32 – Col. 12: line 8.) Here, the existing high-level application is considered the first metamodel and CAM is considered the second metamodel.)

- *substituting automatically a plurality of standards-noncompliant entity names associated with entities of said first metamodel system with standards-compliant entity names;*

(Fig. 3 – Language Metamodel **305** – and associated text, e.g. Col. 13: lines 44 – 67; “...the source language, the target language, and the mapping between the two ...”).

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Examiner notes that the mapping of one language to another involves entity mapping, e.g. substitution of non-compliant to compliant entity names.)

- *substituting automatically a plurality of standards-noncompliant file names for associated files within said first metamodel system with a plurality of standards-compliant file names for said associated files;*

(Type Descriptor Metamodel, e.g. Col. 11: line 32 – Col. 12: line 8; "...The Type Descriptor metamodel defines the physical realization, storage mapping ... ". Examiner notes that storage mapping includes association between a file name and its location in the file system. Therefore, as shown in Fig. 6 and associated text, e.g. Col. 10: lines 32 – 43, file names specified within a metamodel, such as PL/I model, is substituted as necessary to comply with the semantics of HLASM metamodel, as shown in Fig. 13 – HLASMSourceText's fileName field.)

- *organizing said entities having standards-compliant entity names into a plurality of files and folders having standards-compliant file names;*

(Fig. 6 – DTD and Schema for Rose Model 605, Java Code for the Rose Model 609, and XML instance for the Copybook according to Model – and associated text, e.g. Col. 10: lines 32 – 43. Examiner notes that the entities read from copybooks 607 and CAM model Rose file 601 are organized in the generated files and models accordingly and appropriately.)

- *converting object identity values associated with objects within said first metamodel system into a single predetermined object identity value;*

(Figs. 10 and 11 – Type Descriptor Metamodel – and associated text, e.g. Col. 15: lines 10 – Col. 17: line 17; "...The association between TDLangElement and PlatformCompilerType is many to one ... ". Examiner notes that Type Descriptor Metamodel maps instances or objects' identities, i.e. TDLangElement, to a single object identity, i.e. PlatformCompilerType.)

- *substituting standards-noncompliant relationship types within said first metamodel system with standards-compliant relationships types; and*

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(Type Descriptor Metamodel, e.g. Col. 14: lines 1 – 13; "...physical representation of individual fields of a given data structure ...data types mapping between mix languages ...". Examiner notes that mapping mix languages into a language independent Type Descriptor Metamodel implies mapping of relationship types, e.g. data types, from one language to another.)

- *substituting remaining standards-compliant mark-up language within said first metamodel system with standards-compliant mark-up language to yield said second metamodel system.*

(Fig. 2 – SQL stored procedures, Fig. 3 – CAM, and Fig. 5 and associated text, e.g. Col. 10: lines 15 – 24. An existing application, such as SQL stored procedures **205**, is read by CAM, **301** & **303** & **305**, to build a metamodel stored in metadata repository **505** which is ultimately combined with a source code **507** to generate XML document **511**. During the operation of CAM, the hyperlinks of SQL store procedures are converted as necessary to comply with the standards of invocation metamodel **301** & application-domain interface metamodel **303** & language metamodel **305**. Examiner notes that Type Descriptor metamodel handles the physical realization, storage mapping, and the constraints on the realization. Type Descriptor metamodel further provides data type mapping and language translation in a mixed language and/or platform environment (Col. 11: line 32 – Col. 12: line 8.) Here, the existing application is considered the first metamodel and CAM is considered the second metamodel.)

-- Claim 2.

Ehrman discloses *the method of claim 1, further comprising the step of*

- *parsing automatically said files within said first metamodel system for said standards-noncompliant entity names.*

(Fig. 6 and associated text, e.g. Col. 10: lines 32 – 43; "...The importer parses the source code ...".)

-- Claims 3 and 5.

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Ehrman discloses *the method of claim 1, further comprising the step of*

- *associating said standards non-compliant entity names with said standards-compliant entity names in an index.*

(Figs. 10 and 11 – Type Descriptor Metamodel – and associated text, e.g. Col. 15: lines 10 – Col. 17: line 17; “...The association between TDLangElement and PlatformCompilerType is many to one, and the association between PlatformCompilerType and InstanceTDBase is one to one ... “. Examiner notes that entity names are associated to metamodel entity names according to a predetermined mapping, e.g. in an index.)

-- Claim 4.

Ehrman discloses *the method of claim 1, further comprising the step of*

- *associating said standards non-compliant file names with said standards-compliant file names in an index.*

(Type Descriptor Metamodel, e.g. Col. 11: line 32 – Col. 12: line 8; “...The Type Descriptor metamodel defines the physical realization, storage mapping ... “. Examiner notes that storage mapping includes association between a file name and its location in the file system. Therefore, as shown in Fig. 6 and associated text, e.g. Col. 10: lines 32 – 43, file names specified within a metamodel, such as PL/I model, is substituted as necessary to comply with the semantics of HLASM metamodel, as shown in Fig. 13 – HLASMSourceText’s fileName field, according to a predetermined mapping, i.e. in an index.)

-- Claim 6.

Ehrman discloses *the method of claim 1, wherein*

- *said standards-compliant hyperlinks substituting step further comprises the step of substituting automatically a plurality of standards-noncompliant hyperlinks within said first metamodel system with a plurality of standards-compliant hyperlinks using an index.*

(Fig. 2 – SQL stored procedures, Fig. 3 – CAM, and Fig. 5 and associated text, e.g. Col. 10: lines 15 – 24. An existing application, such as SQL stored procedures **205**, is read by CAM, **301** & **303** & **305**, to build a metamodel stored in metadata repository **505** which is ultimately combined with a source code **507** to generate XML document **511**. Examiner notes that during the operation of CAM, the hyperlinks of SQL store procedures are converted as necessary to comply with the standards of invocation metamodel **301** & application-domain interface metamodel **303** & language metamodel **305**. The conversion is in accordance to a predetermined mapping, i.e. using an index.)

-- Claim 7.

Ehrman discloses *the method of claim 1 wherein*

- *said converting step further comprises the step of setting object identity values associated with objects within said first metamodel system into a single predetermined object identity value of 1.*

(**Ehrman** discloses that the identity values TDLangElement's are associated with TDLangClassifier and TDLangComposedType (Fig. 9 and associated text, e.g. Col. 15: lines 1 – 9.) The mapping of tdLangSharedType and tdLangGroup to tdLangTypedElement is 0..1 to 0..*. Thus, when only one tdLangGroup is necessary, the mapping here is one-to-one, and thus the identity value of that single tdLangElement is 1.)

-- Claim 8.

Ehrman discloses *the method of claim 1, further comprising the step of*

- *deriving said standards-compliant relationship type names using relationship type connection rules associated with a predetermined set of relationship type derivation rules.*

(Type Descriptor Metamodel, e.g. Col. 14: lines 1 – 13; "...physical representation of individual fields of a given data structure ...data types mapping between mix languages ...". Examiner notes that mapping mix languages into a language independent Type

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Descriptor Metamodel implies mapping of relationship types, e.g. data types, from one language to another. The language independent data types are predetermined in order for mapping to take place.)

-- Claim 9.

Ehrman discloses *the method of claim 1, further comprising the step of*

- *verifying the operability of said second metamodel system with an associated model by testing the operation of said standards-compliant hyperlinks in said second metamodel system with said associated model.*

(Fig. 2 – SQL stored procedures, Fig. 3 – CAM, and Fig. 5 and associated text, e.g. Col. 10: lines 15 – 24. An existing application, such as SQL stored procedures **205**, is read by CAM, **301** & **303** & **305**, to build a metamodel stored in metadata repository **505** which is ultimately combined with a source code **507** to generate XML document **511**. Examiner notes that the verification of operability of the CAM is implicitly performed during the XML Document **511** generation process; only correct operation of CAM produces produce proper XML document as a result.)

-- Claims 10 – 18 are system claims for performing a method corresponding to the method of claims 1 – 10, respectively. **Ehrman** discloses a system (Fig. 1 and associated text, e.g. Col. 9: lines 51 – 64) for performing the method of claims 1 – 19. Therefore, claims 10 – 18 are rejected for the same reason set forth in connection to the rejection of claims 1 – 9 above, respectively.

-- Claims 19 and 20 are computer product claims for performing a method corresponding to the method of claims 1 and 8, respectively. **Ehrman** discloses a computer product (Col. 36: line 55 – Col. 40: line 16) for performing the method of claims 1 and 8. Therefore, claims 19 and 20 are rejected for the same reason set forth in connection to the rejection of claims 1 and 8 above, respectively.

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Conclusion


The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. See the attached Notice of References Cited.

Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone is (571) 272 8570. The examiner can normally be reached on Monday, Tuesday, Thursday, and Friday from 6:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

T.Dao



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SUPERVISORY PATENT EXAMINER